Claims

1. Device for the optical display of information representing the actual operating state of a liquid system and/or for setting parameter for a set operating state of the liquid system, comprising a housing (12) arranged in the area of the operation of the liquid system, a display unit (14) accommodated in the housing (12) for optical display of information in electronic form, and actuating device (16) accommodated by the housing (12) for setting at least one parameter and a, particularly electronic, control unit (18; 44) for processing data and/or signals referring to the actual or set operating state of the liquid system.

2. Device in accordance with claim 1, characterized in that the housing (12) is arranged in the outside area of the liquid system.

3. Device in accordance with claim 1 or 2, characterized in that the housing (12) can be mounted on a wall or similar enclosing the liquid system, particularly in a recess in the wall.

4. Device in accordance with claim 3, characterized in that the housing (12) can be mounted on the wall, or in the recess of wall, slightly projecting, flush or at least partially recessed relative to the area spanned by the wall.

5. Device in accordance with claim 3 or 4, characterized in that the housing (12) can be mounted on the wall or in a recess in the wall by means of captive screws (20).

6. Device in accordance with one of claims 1 to 5, characterized in that the housing (12) is of two-part construction, in particular comprising a mainly flat lower section (22) and a partly cover-shaped upper section (24) that are joined to each other by screws

(26).

7. Device in accordance with claim 6, characterized in that the screws (26) for connecting the essentially flat lower section (22) and partly cover-shaped upper section (24) cannot be accessed from the outside (28) of the housing (12).

8. Device in accordance with one of claims 1 to 7, characterized in that the housing (12) is of encapsulated design, in particular temperature insulated.

9. Device in accordance with one of claims 1 to 8, characterized in that the housing (12) is allocated a heater (34; 50; 52, 54) for heating the inner space enclosed by the housing (12) and/or a cooling device for cooling the inner space enclosed by the housing (12) and for maintaining a constant temperature level therein.

10. Device in accordance with one of claims 1 to 9, characterized in that the display unit (14) is of electroluminescent or similar design, and in particular has a 1/4" VGA display with 320 x 240 pixels or similar display.

11. Device in accordance with one of claims 1 to 10, characterized in that the display unit (14) has graphics capability.

12. Device in accordance with one of claims 1 to 11, characterized in that the display unit (14) is divided into at least two display fields (36, 36', 36'', 36'''), in which the information to be displayed can be individually represented by enlargement, flashing at intervals or positive/negative arrangement of the font, pictures or similar corresponding to the particular information content.

13. Device in accordance with claim 12, characterized in that the display unit (14) is divided into four display fields, in which the actual operating state and the set

operating state, functional information, fault information and other service information can be displayed.

14. Device in accordance with claim 13, characterized in that the display unit (14) shows the current amount of liquid present in the liquid system or the current contents level as the actual operating state and the required amount of liquid to be provided in the liquid system or the required contents level as the set operating state.

15. Device in accordance with one of claims 10 to 14, characterized in that the display unit (14) shows the actual and/or set operating state of the liquid system in the form of a column, bar, arrow or as a numerical value or similar.

16. Device in accordance with claim 15, characterized in that the display unit (14) shows the actual operating state by means of a variable-height column or a variable-length bar (38), particularly, in steps of 1% and the set operating state by a moving arrow (40) next to the column or under or above the bar, particularly in predetermined steps.

17. Device in accordance with one of claims 1 to 16, characterized in that the display unit (14) shows the information to be displayed in a language that can be individually activated.

18. Device in accordance with one of claims 1 to 17, characterized in that the actuating device (16) has at least one control element (42, 42', 42'') for selecting the at least one parameter.

19. Device in accordance with one of claims 1 to 18, characterized in that the actuating device (16) comprises at least two control elements (42', 42'') acting in opposing directions, for setting the at least one parameter.

20. Device in accordance with one of claims 1 to 19, characterized in that the control unit (18; 44) is mounted in the housing (12) or in a different housing separate from it.

21. Device in accordance with one of claims 1 to 20, characterized in that the control unit (18; 44) is designed in such a way that it interacts with the display unit (14), the actuating device (16), the heater (34; 50; 52, 54) and the liquid system.

22. Device in accordance with one of claims 1 to 21, characterized in that the control unit (18; 44) includes the heater (34; 50) allocated to the housing (12).

23. Device in accordance with one of claims 1 to 22, characterized in that the control unit (18; 44) includes a further heater (52, 54) that is directly allocated to the components of the control unit (18; 44).

24. Device in accordance with one of claims 1 to 24, characterized in that the control unit (18; 44) communicates with the liquid system through a data bus (56), particularly a Controller Area Network (CAN) bus or a RS485 bus.

25. Use a device in accordance with one of the preceding claims in a stationary liquid system of a building, building structure or similar or in a mobile liquid system of a land vehicles and/or aircraft and/or watercraft.

26. Use of a device in accordance with claim 25 in a liquid system of an aircraft, that in particular is mounted on the underneath of its fuselage.

27. Use of a device in accordance with one of the preceding claims for optical representation and setting of the actual or set operating state of drinking and/or service water systems, fuel systems, in particular kerosene systems, disinfecting agent systems, drainage systems and

wastewater system.